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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,139	12/01/2003	Chien Kuo Wang	MR2349-973	1204

4586 7590 03/29/2005

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ELLICOTT CITY, MD 21043

EXAMINER

YEAGLEY, DANIEL S

ART UNIT	PAPER NUMBER
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3611

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p><i>12</i></p> <p>Office Action Summary</p>	Application No.	Applicant(s)	
	10/724,139	WANG ET AL.	
	Examiner	Art Unit	
	Daniel Yeagley	3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-8 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seol '340 in view of Ridenhour 159.

Seol discloses a bicycle having two pedaling modes (abstract) comprising an inherent bicycle body, seat, handlebars and wheels, wherein the bicycle of Seol shows pedals 33 connected to two cranks 1 which are connected to sleeves and tail portions of a shaft unit disposed in a rotating shaft structure and mode change apparatus disposed below the bicycle body for driving the inherent wheels (figure 1), wherein the shaft unit comprises a washer, tail portions extending from the ends of a shaft portion 3 with concave and convex sections of hollow sleeves and wedge portions that ultimately mate with each other (figure 1) and further include other features of a mode change apparatus consisting of a cable connected to a controller to a bar as broadly claimed as best understood, but failed to disclose a shaft unit having a first and second spring as claimed.

Ridenhour discloses a bicycle having a rotating shaft structure and mode change apparatus with a shaft unit (figure 2), wherein the shaft unit includes a first and second spring 170, 180 which are disposed to enclose a shaft and tail portion of the shaft structure for returning the pedals to an upward location (page 3, second column).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the shaft unit of Seol rotating shaft structure with a set of springs disposed on the shaft portion in order to provide an alternative means to bias the pedals to an upward location as suggested by the spring covered shaft of Ridenhour to bias the pedal upward.

3. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seol '340 as modified by Ridenhour 159.

Seol as stated above disclosed a bicycle with pedaling modes, which shows pedals connected to cranks that are connected to tail portions of a shaft unit by jigs disposed on the sides of the cranks (figure 1) as modified by the springs of Ridenhour, but lacked the tail portions having flutes mated with teeth on the jigs of the cranks and tightened by a bolt screw means as claimed.

Seol discloses the claimed invention as modified except for the fluted ends and teeth clamped fast by a bolt fastening means. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified the tail portions of Seol shaft unit with fluted ends which would engage with teeth of a jig on a crank since the examiner takes Official Notice of the equivalence of spline connection and press-fit connection for their use in the bicycle art for coupling components together and the selection of any of these well known equivalents to couple the cranks to the shaft unit would be within the level of ordinary skill in the art.

Allowable Subject Matter

4. Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wang et al '139 and '302, Im '906, Pollard '230, Toronto et al '718, Norred '154 and Freeberg et al '566 show bicycles having two pedaling modes.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Yeagley whose telephone number is **703 - 305 - 0838**. The examiner can normally be reached on Mon. - Fri; first Friday off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley D Morris can be reached on **703 - 308 - 0629**. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

In the near future; because of a pending move of the examining corps to a new campus, the examiner and SPE telephone numbers will change to **571 - 272 - 6655** and **571 - 272 - 6651**; respectively.

Art Unit: 3611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D.Y.

 3/21/05
PAUL N. DICKSON
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TECHNOLOGY CENTER 3600